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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/001,671	10/31/2001	Giuseppe Baddaria	DKT00140	2089

7590 09/17/2003

BORG WARNER INC.  
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EXAMINER

JOYCE, WILLIAM C

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 09/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/001,671

Applicant(s)

BADDARIA, GIUSEPPE

Examiner

William C. Joyce

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 and 10-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 10-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This Office Action is in response to the amendment filed July 10, 2003 for the above identified patent application.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 10-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Iguchi (JP 56-150655).

Iguchi discloses a chain sprocket having teeth with three different flank profiles T0, T1, T2, as seen in Figures 3 and 7, with a constant spacing between roots, as seen in Figure 6. Each of the three flank profiles has a differing flank radius varying between a maximum and minimum tooth flank radius. The angle between the root radius and the tooth flank radius inherently varies due to the varying pressure angles created by the differing flank radii, and the effective displacement of the line of tangency created thereby. The sprocket is formed with a constant outer diameter and the chordal pitch is constant, as seen in Figure 6.

***Response to Arguments***

3. Applicant's arguments filed 7/10/03 have been fully considered but they are not persuasive.

It appears that applicant's primary argument is that the instant sprocket is configured to be used with a roller or bushing chain, wherein the roller or bushing contacts the seatings of grooves between the teeth of the sprocket. The functional limitations, for example, "for a roller or bushing chain" and "a root radius...for receiving rollers of a chain" found in the preamble and the body of the claims have been given little patentable weight because claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). It is understood that applicant intends to claim only the sprocket and not the chain. Accordingly, the structural arrangement of the sprocket disclosed by Iguchi anticipates each positively recited limitation defined by the claims. To overcome the claim rejection set forth above, examiner suggests that the claims be further amended to clearly and positively recite the combination of the roller chain and the roller chain sprocket. However, amending the claim to positively recite the combination requires further consideration and may be rejected based on an obvious type rejection based on 35 USC 103.

Examiner acknowledges the argument "Iguchi does not disclose different flank profiles selected to maintain a constant spacing between the sprocket seatings between the teeth and the sprocket center, as recited in claim 1" (see page 6 of the remarks), however this argument is not commensurate with the scope of claim 1. More clearly,

claim 1 recites "at least some sprocket teeth have flank profiles differing from one another" and does not define the different flank profiles being selected to maintain a constant spacing between the sprocket seatings between the teeth and the sprocket center. Accordingly, the claims remain rejected based on Iguchi.

The argument that "Iguchi does not disclose a sprocket having roots each having a root radius  $R_1$  defined between adjacent teeth for receiving rollers of a chain where the roots having a constant root diameter  $d_r$ , as recited in claim 11 and by dependency in claims 22-25" (see page 6) is not found persuasive because Iguchi illustrates each root having a constant root diameter. With respect to the functional recitation of the roots configured to accept rollers of a chain, the functional limitation has been given little weight because the sprocket must define over the prior art in terms of its structure.

Applicant argues that Figure 4 of Iguchi illustrates "the distance between one of the pins (J) and the other pins connecting the chain links varies according to the tooth profile" (see page 6). This argument is not commensurate with the scope of the claims because the claims do not positively recite a distance between the pins as being constant. As noted above, the claims do not even positively recite a roller chain.

For the reasons set forth above, the claim remain rejected based on the teaching to Iguchi.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 3682

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Joyce whose telephone number is (703) 305-5114. The examiner can normally be reached on Monday - Thursday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on (703) 308-3668. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

  
William C. Joyce 9/16/03